CLAIMS

1. Method for determining the region of visibility between at least a first reflector and a second reflector comprising the following phases:

representing said first and second reflector in a system of coordinates (x, y, z);

said method is characterised in that it comprises the further phases of:

carrying out an affine transformation of said system of coordinates (x, y, z);

determining the region of visibility of said second reflector in relation to said first reflector as the set of the parameters of the straight lines that link a generic point of said first reflector with a generic point of said second reflector.

2. Method in accordance with claim 1 characterised in that said affine transformation comprises the execution of a rotatory-translation of said system of coordinates (x, y, z) so that said first reflector is placed on the plane x = 0.

3. Method in accordance with claim 1 characterised in that said affine transformation comprises the execution of a scaling down of said system of coordinates (x, y, z) so that said first reflector assumes preset dimension.

4. Method in accordance with claim 1 characterised in that it comprises a third reflector; and the following phases:

determining the region of visibility of said second and third reflector seen from said first reflector;

in the case that there are overlapped regions of visibility tracing a semistraight line in said system of coordinates whose parameters are comprised in the overlapping region starting from said first reflector;

determining what is the succession of the intersections between said second and third reflector;

assigning the portion of overlapped region of the region of visibility to the reflector having priority succession order;

said regions of visibility represent a visibility diagram.

5. Method in accordance with claim 1 characterised by:

representing said first reflector and second reflector in a system of coordinates (x, y) by means of segments;

executing an affine transformation of said system of coordinates (x, y) capable of leading said first reflector to assume coordinates of the extremes in the points(0, m) and (0, n) with $m < n$;

representing said second reflector by means of the following system of equations

x = and t + f

$y = g\,t + h$

with $0 \leq t \leq 1$

representing a generic straight line by means of the parameters a, b of the equation $y = a\,x + b$;

determining the region of visibility determining all the straight lines that pass through a generic point of the first and of the second reflector combining the previous equations and obtaining the following system

$g\,t + h = a\,(e\,t + f) + b$

with $0 \leq t \leq 1$ and with $m \leq b \leq n$.

6. Method for determining a beam tree of beams of rays on a plurality of reflectors comprising the phases of previously determining the set of the region of visibility from each reflector in accordance with claim 1.

7. Method for determining a beam tree of beams of rays on a plurality of reflectors comprising the phases of previously determining the visibility diagram in accordance with the previous claims;

positioning a source in a system of coordinates (x, y);

determining in said system of coordinates (x, y) the areas of the reflectors illuminated by said source;

memorizing the coordinates of said areas of the reflectors illuminated by said source;

representing a virtual source for each reflector illuminated;

applying said affine transformation of said system of coordinates (x, y) to said virtual source and to said illuminated region;

said illuminated transformed region is represented by means of a segment of extremes $(0, b_0)$ and $(0, b_1)$;

representing said virtual source transformed in the space of the parameters (a, b) by means of the equation $y = a x + b$, and the illuminated region by means of the disequation $b_0 \leq b \leq b_1$;

the system of equations $y = a x + b$ and $b_0 \leq b \leq b_1$ represents a segment of illumination in the space of the parameters (a, b);

intersecting said segment of illumination with said visibility diagram obtaining sub-segments and thus sub-intervals of the interval $b_0 \leq b \leq b_1$;

said sub-intervals will represent portions of the illuminated region that will each illuminate a new reflector.

8. Program for computer comprising a program code that carries out all the phases of any previous claim when said program is executed on said computer.

9. Program for computer recorded on a support that can be used by said computer for controlling the execution of all the phases of any previous claim.